Amendments to the Claims:

Please amend claims 1, 29, 64, 68, 76, 79, 87 and 88 as follows.

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for determining authenticity of an optical medium comprising:

modifying an optical path of the optical medium, the optical medium including a first layer adjacent a data layer, the modifying of the optical path of the optical medium comprising:

selecting a region of the first layer to be distorted; and

prior to a reading operation of the medium, distorting the region of the first layer, the distorted region extending in a direction along a track of the data layer;

performing a reading operation of the optical medium, the distorted region modifying the reading operation of data stored in the data layer corresponding to the distorted region, such that when data stored in the data layer corresponding to the distorted region is read, a measurable change in system performance of the reading operation results and the ability to perform the reading operation in the distorted region is maintained with at least one of error-free status and degrees of error status that indicates an avoidance of complete data corruption while slowing down the reading operation process, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;

detecting the measurable change in system performance that occurs during the reading operation that is maintained during reading of the distorted region, wherein the measurable change in system performance is based on timing of the reading operation;

authenticating the optical medium based on the measurable change in the system performance.

2. (Original) The method of claim 1 wherein the first layer comprises a reading layer through which the optical path is directed.

3. (Previously Presented) The method of claim 2 wherein the optical medium further

comprises a back layer adjacent the data layer, opposite the reading layer.

4. (Original) The method of claim 3 wherein selecting a region and distorting the region are further performed on the back layer.

5. (Original) The method of claim 1 wherein the first layer comprises a back layer.

6. (Original) The method of claim 5 wherein the optical medium further comprises a reading layer adjacent the data layer, the reading layer opposite the back layer.

7. (Original) The method of claim 6 wherein selecting a region and distorting the region are further performed on the reading layer.

8. (Original) The method of claim 1 wherein selecting comprises selecting a predetermined region of the first layer.

9. (Original) The method of claim 1 wherein selecting comprises selecting a random region of the first layer.

10. (Original) The method of claim 1 wherein distorting comprises distorting the region of the first layer such that the optical path of incident light in the distorted region for reading the corresponding data in the data layer is modified.

11. (Original) The method of claim 1 wherein distorting comprises forming an indentation in an outer surface of the first layer.

12. (Original) The method of claim 11 further comprising encapsulating the indentation.

13. (Original) The method of claim 12 wherein encapsulating comprises providing a second layer on the first layer and the indentation.

14. (Original) The method of claim 11 wherein forming an indentation comprises forming multiple indentations of multiple depths in the first layer.

15. (Original) The method of claim 1 wherein distorting comprises providing a convex feature at the first layer.

16 (Original) The method of claim 15 wherein the convex feature extends from an outer surface of the first layer.

17. (Original) The method of claim 15 wherein the convex feature is embedded within the first layer.

18. (Original) The method of claim 15 further comprising encapsulating the convex feature with a second layer provided on the first layer and the convex feature.

19. (Original) The method of claim 15 wherein distorting further comprises forming an indentation in an outer surface of the first layer, and wherein the convex feature is provided within the indentation.

20. (Original) The method of claim 15 wherein distorting further comprises forming an indentation in an outer surface of the first layer, and wherein the convex feature is embedded within the first layer below the indentation.

21. (Original) The method of claim 15 wherein providing a convex feature comprises forming multiple convex features of multiple thicknesses at the first layer.

22. (Original) The method of claim 15 wherein the convex features comprise voids formed in the first layer.

23. (Original) The method of claim 1 wherein distorting comprises altering an outer surface of the first layer in the region.

24. (Original) The method of claim 23 wherein altering comprises altering the texture of the outer surface.

25. (Original) The method of claim 1 wherein distorting the region of the first layer is conducted during manufacture of the optical medium.

26. (Original) The method of claim 1 wherein distorting the region of the first layer is conducted following manufacture of the optical medium.

27. (Original) The method of claim 1 wherein distorting is conducted by a distorting technique selected from the group of techniques consisting of: pressure, heat, chemical, electrical, friction, and drilling.

28. (Original) The method of claim 1 wherein the optical medium is a dual-sided medium having dual opposed data layers and first layers.

29. (Previously Presented) An optical medium having a modified optical path for authenticating of the optical medium comprising:

a first layer adjacent a data layer; and

a distorted region formed at the first layer prior to a reading operation of the medium such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, such that when data stored in the data layer corresponding to the distorted region is read in a reading operation, a measurable change in system performance of the reading operation results and the ability to perform a reading operation in the distorted region is maintained with at least one of error-free status and degrees of error status that indicates an avoidance of complete data corruption while slowing down the reading operation process, the measurable change in

system performance being based on timing of the reading operation, the distorted region extending in a direction along a track of the data layer, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation.

30. (Original) The optical medium of claim 29 wherein the first layer comprises a reading layer through which the optical path is directed.

31. (Previously Presented) The optical medium of claim 30 wherein the optical medium further comprises a back layer adjacent the data layer, opposite the reading layer.

32. (Original) The optical medium of claim 31 wherein a distorted region is further provided on the back layer.

33. (Original) The optical medium of claim 29 wherein the first layer comprises a back layer.

34. (Original) The optical medium of claim 33 further comprising a reading layer adjacent the data layer, the reading layer opposite the back layer.

35. (Original) The optical medium of claim 34 wherein a distorted region is further provided on the reading layer.

36. (Original) The optical medium of claim 29 wherein the distorted region is provided at a predetermined location.

37. (Original) The optical medium of claim 29 wherein the distorted region is provided at a location that is randomly generated.

38. (Original) The optical medium of claim 29 wherein the distorted region distorts the first layer such that the optical path of incident light in the distorted region for reading the

corresponding data in the data layer is modified.

39. (Original) The optical medium of claim 29 wherein the distorted region comprises an indentation in an outer surface of the first layer.

40. (Original) The optical medium of claim 39 further comprising a second encapsulation layer on the first layer and the indentation.

41. (Original) The optical medium of claim 39 wherein the indentation comprises multiple indentations of multiple depths in the first layer.

42. (Original) The optical medium of claim 29 wherein the distorted region comprises a convex feature at the first layer.

43. (Original) The optical medium of claim 42 wherein the convex feature extends from an outer surface of the first layer.

44. (Original) The optical medium of claim 42 wherein the convex feature is embedded within the first layer.

45. (Original) The optical medium of claim 42 wherein the convex feature is encapsulated by a second layer provided on the first layer and the convex feature.

46. (Original) The optical medium of claim 42 wherein the distorted region further comprises an indentation formed in an outer surface of the first layer, and wherein the convex feature is provided within the indentation.

47. (Original) The optical medium of claim 42 wherein the distorted region comprises an indentation formed in an outer surface of the first layer, and wherein the convex feature is embedded within the first layer below the indentation.

48. (Original) The optical medium of claim 42 wherein the convex feature comprises multiple convex features of multiple thicknesses at the first layer.

49. (Original) The optical medium of claim 42 wherein the convex features comprise voids formed in the first layer.

50. (Original) The optical medium of claim 29 wherein the distorted region comprises an alteration of an outer surface of the first layer in the region.

51. (Original) The optical medium of claim 50 wherein the alteration comprises an alteration in the texture of the outer surface.

52. (Original) The optical medium of claim 29 wherein the distorted region is formed during manufacture of the optical medium.

53. (Original) The optical medium of claim 29 wherein the distorted region is formed following manufacture of the optical medium.

54. (Original) The optical medium of claim 29 wherein the distorted region is formed by a distorting technique selected from the group of techniques consisting of: pressure, heat, chemical, electrical, friction, and drilling.

55. (Original) The optical medium of claim 29 wherein the optical medium is a dual-sided medium having dual opposed data layers and first layers.

56.-63. (Canceled)

64. (Currently Amended) ~~A method for determining authenticity of an optical medium comprising:~~

~~modifying an optical path of the optical medium, the optical medium including a~~

~~first layer adjacent a data layer, the modifying of the optical path of the optical medium comprising:~~

~~selecting a region of the first layer to be distorted; and~~

~~prior to a reading operation of the medium, distorting the region of the first layer, the distorted region extending in a direction along a track of the data layer;~~

~~performing a reading operation of the optical medium, the distorted region modifying the reading operation of data stored in the data layer corresponding to the distorted region, such that when data stored in the data layer corresponding to the distorted region is read, a measurable change in system performance of the reading operation results and the ability to perform the reading operation in the distorted region is maintained, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;~~

~~detecting the measurable change in system performance;~~

~~authenticating the optical medium based on the measurable change in the system performance;~~

The method of claim 87, wherein distorting comprises forming an indentation in an outer surface of the first layer.

65. (Previously Presented) The method of claim 64 further comprising encapsulating the indentation.

66. (Previously Presented) The method of claim 65 wherein encapsulating comprises providing a second layer on the first layer and the indentation.

67. (Previously Presented) The method of claim 64 wherein forming an indentation comprises forming multiple indentations of multiple depths in the first layer.

68. (Currently Amended) ~~A method for modifying an optical path of an optical medium, the optical medium including a first layer adjacent a data layer comprising:~~

~~selecting a region of the first layer to be distorted; and~~

~~prior to a reading operation of the medium, distorting the region of the first layer such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, the distorted region extending in a direction along a track of the data layer, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;~~

The method of claim 87, wherein distorting comprises providing a convex feature at the first layer.

69. (Previously Presented) The method of claim 68 wherein the convex feature extends from an outer surface of the first layer.

70. (Previously Presented) The method of claim 68 wherein the convex feature is embedded within the first layer.

71. (Previously Presented) The method of claim 68 further comprising encapsulating the convex feature with a second layer provided on the first layer and the convex feature.

72. (Previously Presented) The method of claim 68 wherein distorting further comprises forming an indentation in an outer surface of the first layer, and wherein the convex feature is provided within the indentation.

73. (Previously Presented) The method of claim 68 wherein distorting further comprises forming an indentation in an outer surface of the first layer, and wherein the convex feature is embedded within the first layer below the indentation.

74. (Previously Presented) The method of claim 68 wherein providing a convex feature

comprises forming multiple convex features of multiple thicknesses at the first layer.

75. (Previously Presented) The method of claim 68 wherein the convex features comprise voids formed in the first layer.

76. (Currently Amended) ~~An optical medium having a modified optical path for authenticating of the optical medium comprising:~~

~~a first layer adjacent a data layer; and~~

~~a distorted region formed at the first layer prior to a reading operation of the medium such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, such that when data stored in the data layer corresponding to the distorted region is read in a reading operation, a measurable change in system performance of the reading operation results and the ability to perform a reading operation in the distorted region is maintained, the distorted region extending in a direction along a track of the data layer, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;~~

The optical medium of claim 88, wherein the distorted region comprises an indentation in an outer surface of the first layer.

77. (Previously Presented) The optical medium of claim 76 further comprising a second encapsulation layer on the first layer and the indentation.

78. (Previously Presented) The optical medium of claim 76 wherein the indentation comprises multiple indentations of multiple depths in the first layer.

79. (Currently Amended) ~~An optical medium having a modified optical path comprising:~~

~~a first layer adjacent a data layer; and~~

~~a distorted region formed at the first layer prior to a reading operation of the medium such that a reading operation of data stored in the data layer corresponding to the~~

~~distorted region is modified, the distorted region extending in a direction along a track of the data layer, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;~~

The optical medium of claim 88, wherein the distorted region comprises a convex feature at the first layer.

80. (Previously Presented) The optical medium of claim 79 wherein the convex feature extends from an outer surface of the first layer.

81. (Previously Presented) The optical medium of claim 79 wherein the convex feature is embedded within the first layer.

82. (Previously Presented) The optical medium of claim 79 wherein the convex feature is encapsulated by a second layer provided on the first layer and the convex feature.

83. (Previously Presented) The optical medium of claim 79 wherein the distorted region further comprises an indentation formed in an outer surface of the first layer, and wherein the convex feature is provided within the indentation.

84. (Previously Presented) The optical medium of claim 79 wherein the distorted region comprises an indentation formed in an outer surface of the first layer, and wherein the convex feature is embedded within the first layer below the indentation.

85. (Previously Presented) The optical medium of claim 79 wherein the convex feature comprises multiple convex features of multiple thicknesses at the first layer.

86. (Previously Presented) The optical medium of claim 79 wherein the convex features comprise voids formed in the first layer.

87. (Currently Amended) A method for determining authenticity of an optical medium, comprising:

modifying an optical path of an optical medium, the optical medium including a first layer adjacent a data layer comprising:

selecting a region of the first layer to be distorted; and

prior to a reading operation of the medium, distorting the region of the first layer by applying a permanent physical distortion to the medium in the first layer, to provide a distorted region in the first layer that modifies the optical path of the medium, the distorted region extending in a direction along a track of the data layer;

performing a reading operation of the optical medium, the distorted region modifying the reading operation of data stored in the data layer corresponding to the distorted region, such that when data stored in the data layer corresponding to the distorted region is read, a measurable change in system performance of the reading operation results and the ability to perform the reading operation in the distorted region is maintained with at least one of error-free status and degrees of error status that indicates an avoidance of complete data corruption while slowing down the reading operation process, the distorted region maintaining its optical characteristics following irradiation of the distorted region during the reading operation;

detecting the measurable change in system performance that occurs during the reading operation that is maintained during reading of the distorted region, wherein the measurable change in system performance is based on timing of the reading operation;

authenticating the optical medium based on the measurable change in the system performance.

88. (Currently Amended) An optical medium having a modified optical path for authenticating of the optical medium comprising:

a first layer adjacent a data layer; and

a distorted region formed at the first layer prior to a reading operation of the medium by applying a permanent physical distortion to the medium in the first layer, to provide a distorted region in the first layer that modifies the optical path of the medium such that a reading operation of data stored in the data layer corresponding to the distorted region is modified, such that when data stored in the data layer corresponding to the distorted region is read in a reading operation, a measurable change in system performance of the reading operation results and the ability to perform a reading operation in the distorted region is maintained with at least one of error-free status and degrees of error status that indicates an avoidance of complete data corruption while slowing down the reading operation process, the measurable change in system performance being based on timing of the reading operation, the distorted region extending in a direction along a track of the data layer, the distorted region having permanent optical characteristics as a result of the physical distortion that are maintained following irradiation of the distorted region during the reading operation.